



# Power of the Sun

Today, we produce the best solar products in the world, right here in America

in our solar cells

As a vertically integrated solar cell manufacturer, SPI offers an array of photovoltaic products - from our standard product line of silicon ingots, wafers, and cells to finished modules and fully customized systems. Utilizing our state-of-the-art manufacturing facilities located just outside Pittsburgh, Pennsylvania, we are able to provide our customers with quality solar products at highly competitive prices. At Solar Power Industries, we take pride in our commitment to a higher standard of quality and customer satisfaction.

To learn more, visit us at [www.solarpowerindustries.com](http://www.solarpowerindustries.com)



Fully automated production facility  
Professional lean production process  
Advanced processing technology

## Our Products

**Ingots and Wafers:** SPI casts feedstock material into ingots that are then cut and sawn into wafers. Both our ingots and wafers are certified to world class standards to provide a strong foundation for your solar product

**Solar Cells:** Our facility produces multi-crystalline solar cells up to 16.7% efficiency. Because our cells are subjected to only the most rigorous quality assurance processes they have become the flagship of SPI's solar power product line

**Modules:** We are so confident in the quality of our UL1703/IEC61215 certified modules, they come with a 25 year peak power warranty. Our vertical integration allows us to meet the customer's demands.

**Custom Products:** For unique electrical requirements, size constraints, or other unusual specifications (like color), SPI will design and manufacture custom modules to meet your demands



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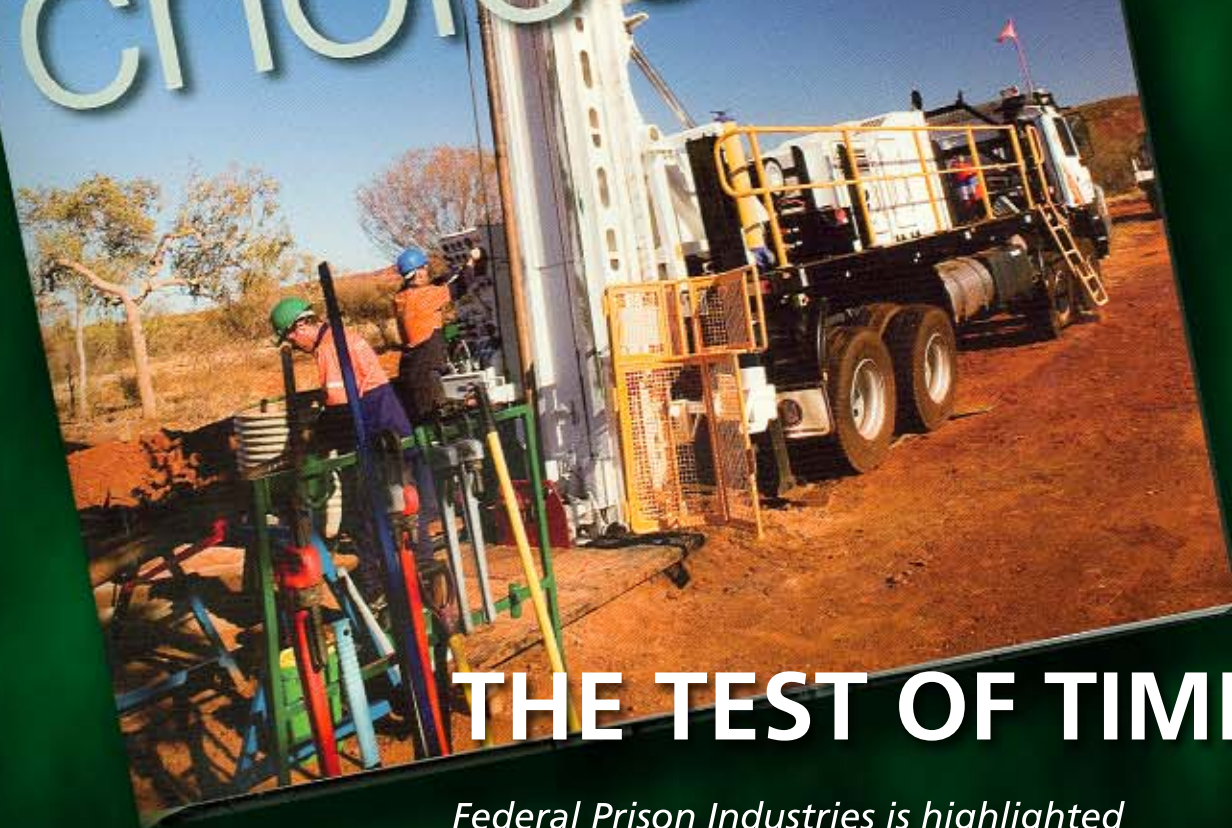
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## THE TEST OF TIME

Federal Prison Industries is highlighted  
in an article by Keith Regan



# The test of time

Federal Prison Industries, Inc. (trade name UNICOR) provides work opportunities and skills training for thousands of inmates at our nation's federal correctional facilities. Keith Regan learns how the organization has evolved and grown since it was created by FDR in 1934

In 1934, President Franklin Delano Roosevelt signed the executive order that gave rise to Federal Prison Industries, a self-sustaining corporation that provides work programs to federal inmates by creating opportunities to make products and provide services that are sold to military and civilian agencies of the federal government. Revenues generated from the sale of FPI's products are used to fund and sustain its operations.

"Our primary mission is employing and training inmates, and we do it in a businesslike fashion that enables multiple stakeholders to benefit," says Robert Grieser, chief of strategic business development and marketing for UNICOR. The federal government receives competitively priced services and products, while inmates receive real-world work training—and are less likely to return to prison if they take part in the voluntary work.

The taxpayers gain through the reduced tax burden for the federal prison system as a result of the UNICOR work program, reducing the need for additional correctional staff and taxpayer dollars. Correctional administrators gain through the reduction of inmate idleness and the benefits to both staff and inmate safety within the correctional facilities by having inmates working in this vital program. And UNICOR's private-sector suppliers and vendor partners, who are often small businesses, gain through the support UNICOR provides—via the purchase of raw materials or value-added labor—for their business.

UNICOR has grown in size along with the federal prison population. Its diverse products and services span seven key business sectors. These seven business groups—Clothing and Textiles, Electronics, Fleet Solutions, Industrial Products, Office Furniture, Recycling and Services—provide opportunities for inmates to engage in productive activities while providing the federal government with quality goods and services in both traditional and non-traditional ways.

The Clothing and Textiles Group provides products such as uniforms and protective wear for the Department of Defense war fighters, box springs and mattresses for DoD housing, and apparel and textile products for other federal government agencies, including law enforcement agencies. The Electronics Business Group primarily produces traditional, labor-intensive electronic products such as cable assemblies and wiring harnesses, communication systems parts, and custom-made precision manufacturing. The Industrial Products Group provides a wide variety of industrial products, from racks and shelving to external fencing. The Office Furniture Group manufactures custom wood furniture, seating, systems furniture and furniture accessories. This group also offers a range of dormitory and quarters furniture, providing the federal government with whole-room solutions.

For several years, UNICOR has moved its focus to more non-traditional areas in order to

diversify and be less reliant on traditional work. The Fleet Solutions Group retrofits vehicles for specific government uses, such as vehicles for the US Border Patrol, and when the customer provides vehicles worn from heavy use for repair and maintenance, the inmates provide a vehicle in good working order back to the customer. The Fleet Solutions Group has grown over time to become the largest of UNICOR's business groups

in terms of revenue generation, with \$229 million in sales in fiscal year 2008, while employing more than 2,300 inmates.

UNICOR's Services Business Group provides services across the spectrum, including order fulfillment, packaging and distribution, data services and document conversion, call center and telephone support, printing and bindery, and laundry services. The United States Patent & Trademark Office is a major customer, and the Services Business Group performs data entry, data cleanup, verification, SGML-like tagging of all data, quality control and return of patent information back to the customer.

UNICOR is also moving all its groups to more environmentally friendly operations. The UNICOR Recycling Group focuses on the reuse and recycling of electronic products. Those that can be reused are returned to their original condition; those that cannot are broken down to their base materials. In the past five years UNICOR has recycled 185 million pounds of computers and other electronic equipment. In addition, the Electronics Business Group is expanding into more non-traditional areas, including solar panel manufacturing, for example, which not only expands UNICOR's offerings but also provides a green solution for federal agencies trying to improve their carbon footprint.

UNICOR is not immune to recessionary impacts either. For instance, its electronics recycling business was enjoying the run-up in commodities prices, as the group sold materials

reclaimed from old machinery. With those prices dropping due to weaker demand globally, that business unit has felt the impact.

In addition to finding ways to expand—with opportunities somewhat limited by the fact that all UNICOR customers for its manufactured products are federal government agencies—UNICOR constantly strives for operational efficiency. "We do everything our private-sector counterparts do to stay competitive," says Grieser. Programs such as lean and six sigma and standards such as ISO quality targets are employed where appropriate, with lean six sigma formally adopted in 2007.

This year and next, UNICOR will focus on sustainability, driving out waste and finding ways to reduce its fuel consumption and its overall environmental impact, with specific goals and initiatives in place in each business unit. The Services Business Group is pushing paperless documentation and digitization, for instance. The Fleet Solutions Group is refurbishing vehicles returning from war theaters for continued use by the government, and the Office Furniture Group is using more recycled steel and fabric fibers. "We constantly look at and review our processes to look for ways to be more lean and efficient, to pass savings on to customers and just be as competitive as we can be."

Grieser says UNICOR has a strong story to tell about the value it brings to the US economy, even in times when the job market is under pressure from recession. "We have the 'made in the USA' advantage. So much is coming from work done outside the US now, we really offer a domestic alternative." One challenge for the company is to help get the message out that using inmates to provide labor is not a bad thing for the private sector. "We think it can help expand the domestic labor pool. All across the country, we are working with partners such as small and disadvantaged businesses to create and expand jobs."

According to its 2008 annual report, 77 percent of UNICOR's revenue was used to buy materials and services from private-sector vendors, 62 percent of which were small businesses owned by women or minorities, spending \$579 million across the country. Meanwhile, just over 21,000 men and women, or 16 percent of the eligible federal prison inmate population, worked with UNICOR, a figure that has been closer to

20 percent in recent years, according to Grieser.

Private-sector partners provide technical support, quality oversight, training services and other support. Studies have also shown that inmates who work with UNICOR benefit, with those who receive the training and work with UNICOR 24 percent less likely to return to prison and 14 percent more likely to find gainful employment when they are released. While working, those inmates also have the ability to send 50 percent of their wages back to their families, while the other half helps defray millions of dollars in court costs and fines as well as victim restitution. "We go to great lengths to avoid a situation where we're displacing private-sector workers. We're actually creating jobs not only for inmates but also our suppliers and partners, and all the while having work done in the United States that might otherwise go offshore.

"At the end of the day, we can really demonstrate that it's an expanding pie for all involved," Grieser adds.

UNICOR also offers stability, he notes, with the company now marking the 75th anniversary of the New Deal-era order creating the company. "We've been around a long time and have really developed and refined as an entity," says Grieser. The factories and facilities are a valuable correctional management tool, providing motivation, reducing idle time and reducing the cost of prison stays for the taxpayer. "We have stood the test of time." ■

## Sioux Manufacturing

Our cooperative relationship with UNICOR, spanning three decades, is valued and provides benefit to the warfighter. Vertically integrated processes from weaving through knitting of armor assemblies sets our tribally owned company apart with all manufacturing operations under one roof. Our expertise in advance process development, prototyping, and high volume production speeds the path to customer profit.

## Solar Power Industries

SolarPowerIndustries, Inc. (SPI) is the benchmark for vertically-integrated US manufacturers and suppliers of high-quality, cost-effective silicon-based solar power products. These products include multi-crystalline ingots, wafers, cells, modules, and arrays. Solar energy has emerged as one of the fastest growing renewable energy sources in the world. Together as partners, SPI and UNICOR will meet the demand for clean, renewable energy made right here in America. With SPI you can forge a strong, reliable relationship with a company that is committed to produce quality at every stage of the supply chain.

